MATLAB and Simulink Report Generator Release Notes

Chapter 1, “MATLAB and Simulink Report Generator 2.3.1 Release Notes” describes the changes introduced in the latest version of Report Generator. The following topics are discussed in these Release Notes:

- “New Features in the Release” on page 1-2
- “Major Bug Fixes” on page 1-3

This document also includes information about new features in previous releases:

- Chapter 5, “MATLAB and Simulink Report Generator 1.3 Release Notes”
- Chapter 4, “MATLAB and Simulink Report Generator 2.1 Release Notes”
- Chapter 3, “MATLAB and Simulink Report Generator 2.2 Release Notes”
- Chapter 2, “MATLAB and Simulink Report Generator 2.3 Release Notes”

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MATLAB and Simulink Report Generator 2.3.1 Release Notes

New Features in the Release

This release adds support for modifying the content of headers and footers in PDF reports. This feature is implemented using stylesheet cells and cell groups. A *cell group* contains one or more stylesheet cells. A *stylesheet cell* is a set of values that determine the content of a particular portion of the header or footer for a page.

Two cell groups, **Header Content** and **Footer Content**, are available for PDF reports. You can use templates to specify XML code that defines the content for a header or footer.

See the online help for more information.

Major Bug Fixes

To view major bug fixes made since R14SP2 for Report Generator, use the Bug Reports interface on the MathWorks Web site.

Note If you are not already logged in to Access Login, when you link to the Bug Reports interface, you will be prompted to log in or create an Access Login account.

If you are viewing these Release Notes in PDF form on the MathWorks Web site, please refer to the HTML form of the release notes on the MathWorks Web site, and use the link provided.

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MATLAB and Simulink Report Generator 2.3 Release Notes

New Features

The following features are introduced in this release.

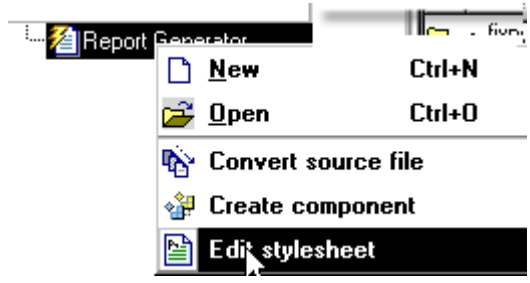
- "Stylesheet Editor" on page 2-2
- "Table Cell Spanning" on page 2-3
- "Generating Microsoft Word Documents as .doc Files" on page 2-3
- "Dialog Snapshot Components" on page 2-3
- "Annotation Loop Component" on page 2-4
- "Improved Graphical User Interface" on page 2-4

Stylesheet Editor

You can use the Stylesheet Editor to customize the formatting of your HTML, PDF, and Word documents. For example, you can specify fonts, paper layout, table presentation, as well as other characteristics of your final report.

Customizing reports by editing stylesheets gives you the flexibility to create reports that conform to corporate style guidelines and requirements.

To open the Stylesheet Editor, right-click **Report Generator->Edit stylesheet** in the Outline panel of the Report Explorer as shown:



For more information about using the Stylesheet Editor, see "Creating and Using Customized Styles".

Table Cell Spanning

You can use Report Generator to create advanced table layouts for MATLAB, Simulink, Stateflow, and Handle Graphics property tables. The advanced layouts include cells that span multiple rows or columns.

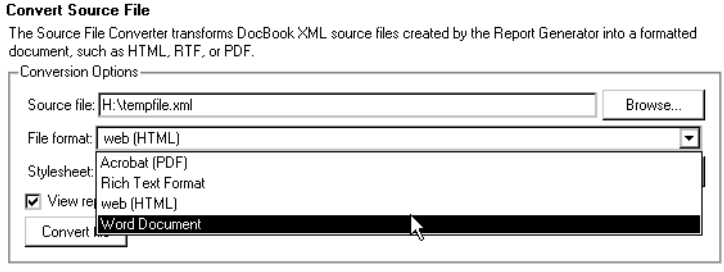
Generating Microsoft Word Documents as .doc Files

You can use Report Generator to generate reports that are saved as Microsoft Word documents with the `.doc` extension. You can also convert XML source files that are generated by Report Generator to `.doc` files.

The reports you create are easier to distribute via email, to share with others, and to manage.

You must have Microsoft Word installed to use this feature, and you must be using Report Generator on a PC system.

To use this feature select **Word Document**from the **Stylesheet** dropdown menu in the **Convert Source File** dialog, as shown:



Dialog Snapshot Components

You can take screen captures of Simulink and Stateflow editor dialogs. You can choose to display the current settings associated with an object, or document the appearance of your custom mask dialogs.

See Simulink Dialog Snapshot and Stateflow Dialog Snapshot for more details.

Annotation Loop Component

You can include Simulink annotations in your reports. A Simulink annotation is a text area that you can edit directly in the block diagram. You typically use an annotation to display quick information about a subsystem.

See Annotation Loop for more details.

Improved Graphical User Interface

This version of the Report Generator has the following changes and improvements to the graphical user interface:

- The File Converter has a **Source File** dropdown menu. Click **Browse** to navigate to a directory to select a source file. The default directory is the current directory.
- In the File Converter, you can select a stylesheet from the dropdown menu and click **Edit** to open the Stylesheet Editor.
- Report Generator has an improved mechanism for detecting and displaying errors that occur when you attempt to add a component that makes the style hierarchy invalid. Users of earlier versions may notice that Report Generator issues warnings for components that had no problems in earlier versions. In this release, warning messages contain instructions about how to fix the problem.
- There is an improved user interface for searching according to property/value pairs in Simulink System Loop and Block Loop components.
- The Figure Screen Capture component has been improved to capture window decorations such as menus, title bars, and toolbars.

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MATLAB and Simulink Report Generator 2.2 Release Notes

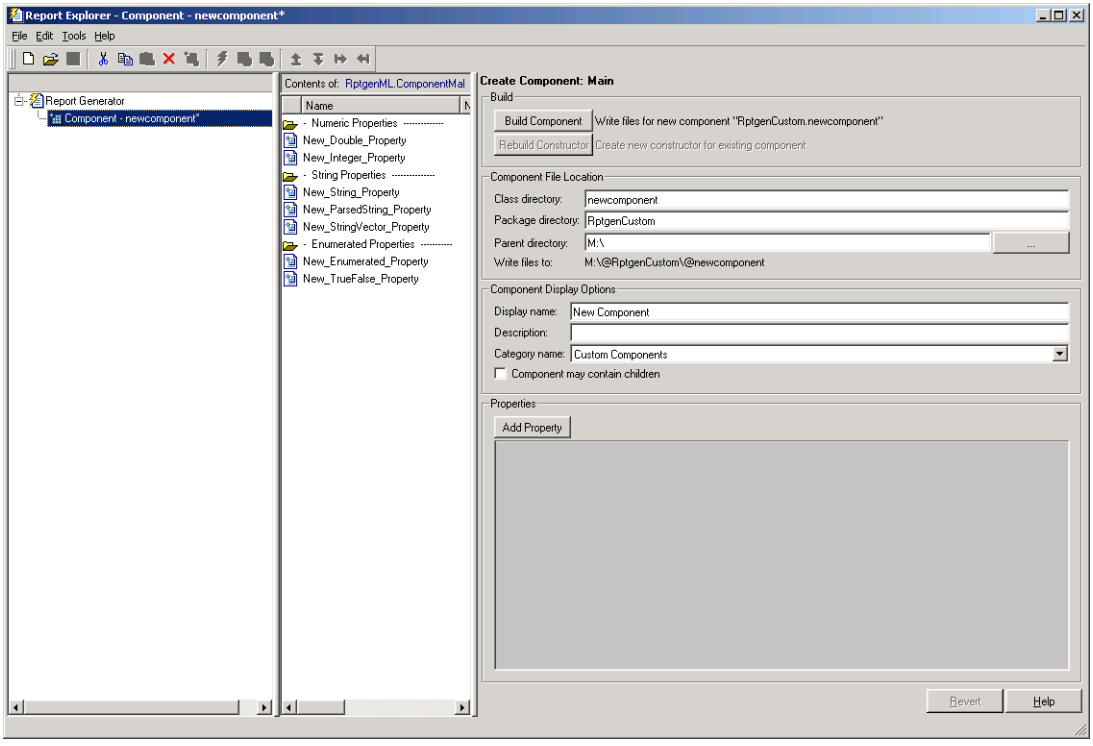
New Features

This section summarizes the new features and enhancements introduced in the Report Generator 2.2 since Version 2.1. This section applies to Simulink Report Generator and MATLAB Report Generator.

Component Creator

Report Generator Version 2.2 provides the Component Creator, a tool which allows you to create custom components. The Component Creator had previously been available in Report Generator Version 1, and is now being introducted in Version 2 of the product.

With the Component Creator you create a "skeleton" object, that is, the Component Creator sets up just the raw structure of the component. You create additional required executable M-code by editing one or more files that the Component Creator produces. A picture of the Component Creator, showing its three panels, appears below.

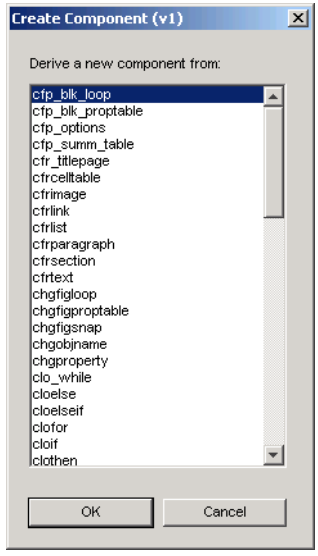


New Platform Supported

Report Generator now supports 64-bit Linux platforms.

Upgrading from an Earlier Release

Components created with Report Generator Version 1 can be imported and used in Version 2. If you want to derive a component from an existing Version 1 component, the Report Explorer presents you with a list of components from which you can choose a component to modify. The list of components is similar to the one shown below:


Create Component (v1)
Derive a new component from:
cfp_blk_loop
cfp_blk_proptable
cfp_options
cfp_summ_table
cfr_titlepage
cfrcelltable
cfrimage
cfrlink
cfrlist
cfrparagraph
cfrsection
cfrtext
chgfigloop
chgfigproptable
chgfigsnap
chgobjname
chgproperty
clo_while
cloelse
cloelseif
clofor
cloif
clothen
OK
Cancel

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MATLAB and Simulink Report Generator 2.1 Release Notes

New Features

This section summarizes the new features and enhancements introduced in the Report Generator 2.1 since Version 2.0. This section applies to Simulink Report Generator and MATLAB Report Generator.

For more information, see the following sections:

- "MATLAB Report Generator New Features" on page 4-2
- "Simulink Report Generator New Features" on page 4-2

MATLAB Report Generator New Features

MATLAB Report Generator offers the following new features

- PDF support
  - PDF stylesheet support for custom page headers and footers
  - PDF title page stylesheet customization
- Better support for Japanese and non-English systems
- Scaling and alignment control for high-quality bitmap Handle Graphics images
- Documents without chapters can use full title page information

Simulink Report Generator New Features

Simulink Report Generator offers the following new features

- PDF support
  - PDF stylesheet support for custom page headers and footers
  - PDF title page stylesheet customization
- Better support for Japanese and non-English systems
- Scaling and alignment control for high-quality bitmap Handle Graphics images
- Better integration between the Report Explorer and Simulink
- New Simulink Library Information component

  - Reports on referenced Simulink libraries in the current model, block, or system
  - Merge repeated rows in the generated table to save space
- Improved Model Change Log component
  - Control over sort order and date format
- Property for displaying destination and source of a signal
- To provide greater control over report generation, new commands are available to set the model, system, block, or signal reported on by a Simulink component:

```
RptgenSL.getReportedBlock
RptgenSL.getReportedSystem
RptgenSL.getReportedModel
RptgenSL.getReportedSignal

RptgenSL.setReportedBlock(blkName)
RptgenSL.setReportedSystem(sysName)
RptgenSL.setReportedModel(mdlName)
RptgenSL.setReportedSignal(sigHandle)
```

  You can use the `set` commands inside an Evaluate MATLAB Expression component. In an Evaluate MATLAB Expression component, you could enter:

```
RptgenSL.setReportedSystem('f14/Controller')
```

  You can use the `get` commands inside any component that supports `%<>` notation. For example, in a Paragraph component, you could enter:

```
%<RptgenSL.getReportedBlock>
```

  When getting or setting a block, system, or model, the object is identified by its full path string. When setting or getting the signal, the signal is identified by the source block's numeric outport handle. Note that none of the `set` methods set the current reporting context like a loop.

Note If you are upgrading from a release earlier than Version 2.1, then you should see in the MATLAB and Simulink Report Generator 2.0 Release Notes.

Upgrading from an Earlier Release

This section describes these issues involved in upgrading from the Report Generator 1.3 to Version 2.1.

Version 2.0 of Report Generator offered a new interface that encompasses all Report Generator functionality. For more information on using the new interface, see the Report Generator documentation.

The original version of Report Generator is still available and can be accessed via the MATLAB command line. To open the previous version of the Report Generator interface, enter `RptgenML.v1mode(true)` at the command line. To use the new version of the Report Generator interface, enter `RptgenML.v1mode(false)` at the command line.

The previous version switch is session-dependent. To always use the previous version of Report Generator, add `RptgenML.v1mode(true)` to your startup.m file.

Note If you have already installed this web release of Report Generator and you install a previous service pack release of MATLAB or Simulink, you must reinstall this web release of Report Generator.

Generating PDF Reports in Japanese

For Japanese PDF support, you must register the file location of a Japanese language font with the Report Generator. If generated PDF documents contain unrecognizable characters, you must register that font. To register a font, use the `setPref` function:

```
RptgenML.setPref('rptgen.body.font.family.fontfile','c:\winnt\fo
nts\msgothic.ttf');
```

This preference setting persists between sessions and only needs to be set once. If the preference is not set, a warning displays during PDF generation that the font must be set.

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MATLAB and Simulink Report Generator 1.3 Release Notes

New Features

Note These Release Notes document both the MATLAB Report Generator 1.3 and the Simulink Report Generator 1.3.

This section summarizes the new features and enhancements introduced in the Report Generator 1.3.

If you are upgrading from a release earlier than Release 12.1, then you should see in the MATLAB and Simulink Report Generator 1.2 Release Notes.

MATLAB Report Generator New Features

Enhancements to Formatting Components

Component	Purpose
Cell Table	You can now specify table column widths.

Enhancements to Report Generator Components

Component	Purpose
`Import File`	You can now import formatted text from RTF and HTML source files.

Simulink Report Generator New Features

Report Generator now supports Stateflow Notes.

New Simulink Component

Component	Purpose
Block Type: `Documentation`	Inserts text extracted from Doc Blocks in Simulink models

Enhancements to Simulink Components

Component	Enhancement
Block Type: `Scope Snapshot`	Improved viewing of multiple black and white traces
`System Snapshot`	You can now specify titles for the diagrams. You can now specify the size of the diagrams.
Block Type: `Look-Up Table`	You can now report on the Pre-Lookup table.

Enhancements to Stateflow Components

Component	Enhancement
`Stateflow Snapshot` (chart)	You can now specify titles for the diagrams.

Upgrading from an Earlier Release

There are no upgrade issues moving from the Report Generator 1.2 to the Report Generator 1.3.

If you are upgrading from the Report Generator 1.0 to the Report Generator 1.3, then you should see in the MATLAB and Simulink Report Generator 1.1 Release Notes.